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October 30, 2002

To: Jim Christiansen, Remedial Project Manager
Libby Asbestos Site

From: Mary Goldade, Project Chemist

Subject: Field Audit Report for Contaminant Soil Screening Program

During the week of August 19, 2002 the Shaw Group (formerly IT Corporation performed a field audit of soil sampling activities for the Contaminant Soil Screening (CSS) sampling program. The audit team performed both technical and evidentiary aspects during the audit. The technical portion of the audit involved evaluation of the procedures applied by the reconnaissance and sampling teams at several residential and commercial properties in the Libby area. The technical evaluation was based on the requirements described in the Sampling and Analysis Plan for Remedial Investigation Contaminant Soil Screening [CSS SAP] (USEPA, April 2002) and the associated attachments, revisions, and amendments. The evidentiary portion of the audit involved evaluation of the completion of field sample data sheets, information field forms, field logbooks, and chain-of-custody (COC) records. Evidentiary audit procedures were followed as outlined in the EPA National Enforcement Investigations Center document, *EPA Regional CSF Completeness Evidence Audit Guidelines*.

The report describing the findings observed by the audit team is provided for your review (Attachment 1). EPA concurs with all findings and/or observations as summarized in the attached report and checklist. Additional clarification or recommendations for some of the findings/observations is provided below.

Section I. Reconnaissance Teams

The observations presented in this section all identify improvements in the area of documentation such that when recommended corrective actions are implemented the defensibility of the



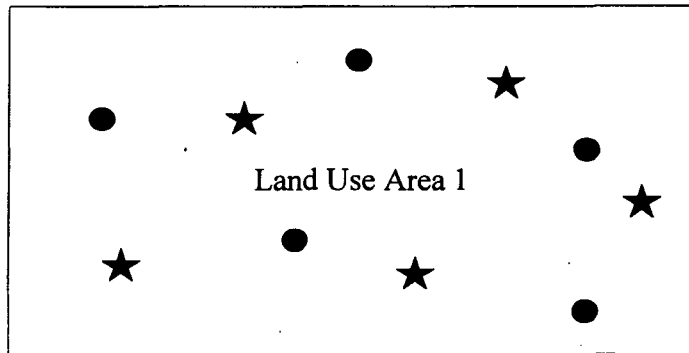
documents will improve the already stellar documentation practices employed by the CDM Federal field team. Note that the absence of observations and/or deviations in this section of the audit report relating to the technical components of reconnaissance activities indicates that the technical components of the CSS field activities are sound and reflect the CSS SAP requirements.

1. Observation 2. EPA recommends that only acronyms used in field logbooks that are not already defined in the CSS SAP be referenced in field logbooks.

Section II. Field Sampling Teams

The observations presented in this section all identify improvements in the areas of procedure and documentation such that when recommended corrective actions are implemented the defensibility of the data generated from the sampling event will improve the already stellar practices employed by the CDM Federal field team.

1. Observation 8. EPA recommends that CDM Federal complete a Record of Deviation/Request for Modification form that specifies drying of decontaminated equipment will include use of paper towels in SOP CDM-LIBBY-05. Large quantities of paper fibers may interfere with analytical results in air samples by PCM. However, paper fibers that may be produced during drying of equipment are not expected to be produced in numbers that would affect quantification of soils in the range of 0.1% Libby amphibole (by mass). Field blank analyses will verify this. Additionally, interference issues surrounding paper fibers are generally with respect to PCM analysis and are not expected for the analytical procedures proposed in for this study (IR, PLM, TEM/EDS, SEM/EDS).
2. Observation 10. An example of the proposed method for collection of a co-located duplicate is provided for illustration. Note that the example is not meant to represent the locations samples should be collected. Rather, it is provided to illustrate that co-located duplicates should also be collected equally as randomly as the original and not necessarily collected at some prescribed distance from the original sample. The purpose of the co-located duplicate is to gain an understanding of the variability of measured Libby amphibole within a land use area.



- ★ Locations (randomly selected) of original field samples.
- Locations (randomly selected) of co-located duplicate field samples.

3. Observation 14. EPA also suggests that CDM Federal craft a 3- to 4-component characterization scheme to qualitatively describe the amount of vermiculite observed in field soils that may be used in future field investigations (subsequent to the CSS study). This information would be documented on FSDS forms and may be useful in further delineating estimated Libby amphibole concentrations by using the amount of vermiculite present as a Libby amphibole indicator.

Section III. Shipping and Receiving

The observations presented in this section all identify improvements in the areas of procedure and documentation such that when recommended corrective actions are implemented the defensibility of the data generated from the sampling event will improve the already stellar practices employed by the CDM Federal field team.

Section IV. Data Management

All but one of the observations presented in this section all identify improvements in the area of documentation such that when recommended corrective actions are implemented the defensibility of the documents will improve the already stellar documentation practices employed by the CDM Federal field team.

CDM Federal must prepare and submit to me a Corrective Action Report (CAR) that responds to the CSS field audit findings within 10 working days of receipt of the report. The response should

provide a summary of corrective action(s) that will be taken to address each of the deviations. The CAR must include the following for each deviation noted in the audit report:

- a description of the corrective action(s) that will be employed to address the audit finding or survey observation;
- the person/team responsible for implementing the corrective action;
- the date the corrective action took or will take effect; and
- the process or schedule for internally re-evaluating the audit observations to ensure the corrective action continues to be implemented over time.

The limited number of issues identified report reveals that CDM is implementing the complex field activities prescribed in the CSS SAP exceptionally. My congratulations go out to the devoted field team and support staff at CDM Federal for their ongoing efforts during the CSS sampling activities. It is through their continued dedication and tenacity that the sampling activities will provide high quality data for this important project. Please contact me if you have any questions about this audit report, the expected contents of the CAR response, or any other quality assurance/quality control concern that may be revealed as the CSS sampling program progresses.

Attachment (1)

cc: Jeff Montera (CDM Federal), w/ attachments

Attachment 1

**Libby Field Audit Report
for Contaminant Soil Screening Activities
Prepared by IT Corporation**

**REPORT
FOR
TECHNICAL ASSISTANCE IN CHEMISTRY AND QUALITY ASSURANCE
REGION VIII**

FINAL SUMMARY ON-SITE AUDIT REPORT

**Libby Field Audit of Contaminant Soil Screening (CSS) Activities
Libby, Montana**

Prepared by:

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**IT Corporation
2700 Chandler Avenue
Las Vegas, Nevada 89120**

October 7, 2002

Contract Number: GS-10F-0048J

Prepared for:

Mary Goldade

**EPA Project Officer
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Region VIII
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ON-SITE AUDIT INFORMATION

The purpose of this report is to summarize the findings of a field audit of Contaminant Soil Screening (CSS) activities conducted in Libby, Montana during the week of August 19, 2002. The audit team evaluated the performance of the reconnaissance and field sampling teams of Camp Dresser and McKee (CDM) at residential and business properties from August 20-22, 2002. The sampling performed by CDM is part of a Remedial Investigation, and Contaminant Soil Screening Study initiated by USEPA Region 8 to identify properties that will require remediation and/or further investigation.

IT Corporation staff participation in the audit and subsequent preparation of this report was performed under Task Order 1 (Libby Contaminant Soil Screening (CSS) Field Audit) of EPA Contract No. GS-10F-0048J.

Detailed information regarding the audit is as follows:

Sampling Project:	Libby Operational Unit 4 Contaminant Soil Screening Study
Sampling Contractor:	CDM, Inc.
Dates of Audit:	August 20-22, 2002
Location:	Libby, Montana 59923

CDM Task Leader:	Dee Warren
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Audit Team

USEPA:	Mary Goldade, Project Officer - Region 8
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IT Corporation (QATS):	Michael Lenkauskas, CQA, Lead Auditor Timothy Vonnahme, CQA, Auditor
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The audit team, comprised of USEPA Region 8 and IT Corporation personnel, performed the technical and evidentiary aspects of the audit. The technical portion of the audit involved evaluation of the procedures applied by the Reconnaissance Teams and the Field Sampling Teams at four (4) residential locations each. The technical evaluation was based on the requirements described in the Remedial Investigation of Contaminant Screening Study Sampling and Analysis Plan (SAP) and associated documents such as Standard Operating Procedures (SOPs) and Records of Deviation/Requests for Modification Forms (RD/RMs). The evidentiary portion of the audit involved evaluation of the completion of field sample data sheets (FSDS), information field forms (IFFs), field logbooks, and chain-of-custody (COC) record. Evidentiary audit procedures as outlined in the EPA National Enforcement Investigations Center (NEIC) document, *EPA Regional CSF Completeness Evidence Audit Guidelines*, were followed.

An On-site Audit Checklist for the Libby Operational Unit 4 Contaminant Screening Study, was prepared by IT Corporation prior to the audit, and was used during the on-site residential and commercial sampling events and document reviews. A copy of the completed checklist is included as an attachment to this report.

AUDIT OBSERVATIONS AND RECOMMENDED CORRECTIVE ACTIONS

- I. **Reconnaissance Teams:** Four (4) reconnaissance teams were used by the Contractor to interview the owners/occupants of the residences and request permission to check for vermiculite and/or vermiculite product. Once the reconnaissance teams had permission to interview the occupants of the residence and perform an inspection of the residence and property, the auditors were contacted by 2-way radio to evaluate the interview and inspection. The auditors independently observed all four reconnaissance teams. The following observations were noted:

1. **Observation by Auditors:** Directional indicators are not always shown on the Information Field Form (IFF) site map. Some of the reconnaissance teams only list the names of the streets that surround the property.

Corrective action by the Reconnaissance Team: When drawing the layout of the property on the IFF site map, add the directional indicator "N" for north including an arrow indicating which direction is north.

2. **Observation by Auditors:** Acronyms are sometimes used in the field logbooks to reference field document forms that may or may not be listed in the SAP or the SOPs. As an example, the acronym "AA" (Access Agreement) was written in one of the field logbooks, but is not referenced in any of the documents.

Corrective action by the Reconnaissance Team: Acronyms should be referenced on the field forms, or referenced or defined in the field logbooks.

3. **Observation by Auditors:** The initials of the sampling team members recorded in the field logbooks are at times illegible. As a result, the auditors could not distinguish which reconnaissance team members had recorded the entries into the logbook.

Corrective action by the Reconnaissance Team: The auditors recommend that the authors print their name, and initial and date the entries for each property in the field logbooks.

4. **Observation by Auditors:** The CDM staff has yet to decide on permanent archival procedures for the digital media. Currently the digital photographs are downloaded from the cameras to the CDM network on a daily basis, the files are renamed to the address of the residence, and the files are stored on the local network. Once a week the digital files are uploaded to the Helena, MT CDM network and are also archived to compact discs which are identified by a document control number.

Corrective action by the Reconnaissance Team: The auditors recommend that once a permanent archival procedure is agreed upon, a Record of Deviation/Request for Modification form be completed to include this procedure in SOP 4-2, Photographic Documentation of Field Activities.

5. **Observation by Auditors:** Documentation that a photograph is taken of each residence was not always performed. Copies of logbook pages from a residence file dated August 20, 2002 did not contain this documentation.

Corrective action by the Reconnaissance Team: Each photograph taken should be documented in the field logbook. Note that for recent entries to the logbooks, all of the photographs were properly documented.

- II. **Field Sampling Teams:** The audit team independently observed four (4) of the field sampling teams as they collected soil samples from four different residential properties. Once the field sampling teams were ready to begin sampling, the auditors were contacted by 2-way radio to meet them and observe the collection of samples. The following observations were noted during sample collection:

6. **Observation by Auditors:** Copies of the signed access agreements obtained by the reconnaissance teams are not carried by the field sampling teams in the event that they are questioned by the occupant of the residence.

Corrective action by the Field Sampling Team: The auditors recommend that the field sampling teams have copies of the access agreement for each resident for which samples are collected. Having the access agreements on-site would help in the event the occupant at the time of sampling was someone other than the person who signed the access agreement, and would eliminate the need to radio back to the office to have the access agreement delivered to the site.

7. **Observation by Auditors:** All field teams were observed performing decontaminations between composite samples. However, these decontaminations were not being documented in the field logbooks.

Corrective action by the Field Sampling Team: A separate entry should be added into the logbook for each residence documenting that the equipment is decontaminated between the collection of samples.

8. **Observation by Auditors:** The field sampling teams are drying the equipment with paper towels instead of air drying as stated in the SOP for Soil Sample Collection (SOP No: CDM-LIBBY-05). The use of paper towels may introduce paper fibers onto the samples.

Corrective action by the Field Sampling Team: The auditors recommend to either complete a Record of Deviation/Request for Modification form to include the use of paper towels in the drying process, or eliminate the use of paper towels from the current sampling procedure.

9. **Observation by Auditors:** A wire brush is used by 3 of the 4 field sampling teams to decontaminate the soil sampling equipment (i.e, stainless steel mixing bowl, trowel, pick axe). The auditors observed that the wire brush scratches the stainless steel

mixing bowl used to mix the subsamples. Fibers could adhere to the scratches, possibly cross-contaminating the samples.

Corrective action by the Field Sampling Team: The CDM Task Leader stated that the wire brush was not part of the initial SOP, but was added under a project-specific modification to CDM-LIBBY-05. The auditors recommend completion of a Record of Deviation/Request for Modification form to specify that the use of the wire brush on the mixing bowl be discontinued, but is allowed for continued use on other harder equipment such as pick axes.

10. **Observation by Auditors:** The sample duplicates collected are not co-located samples as described in the SAP. The sample duplicates are currently split samples of the composite field sample.

Corrective action by the Field Sampling Team: The audit team, with the concurrent approval of Jim Christiansen, (EPA Region VIII Remedial Project Manager) recommends that the sample duplicate be a separate sample randomly co-located in the same land use area.

11. **Observation by Auditors:** Some of the Field Sampling Teams were observed removing material (i.e., twigs, rocks, vegetative matter, etc.) from the composite samples in the mixing bowls.

Corrective action by the Field Sampling Team: The SOP CDM-LIBBY-05 states that items be removed from the subsample locations prior to collecting the sample. The auditors recommend against removal of any material from the mixing bowl prior to making the composite sample to achieve an unbiased sample. In addition, for land use areas that contain large amounts of gravel (driveway), collect more sample for each sub-sample in order to provide for a composite sample that fills at least one-half of the sample container.

12. **Observation by auditors:** The sampling times recorded on the FSDSs and field logbooks for each sampling location are sometimes suspiciously uniform and appear to be recorded prior to sample collection. One field sampling team was observed recording the sampling times prior to sample collection, with each of the entries exactly 10 minutes apart. The actual collection of the samples varied for the pre-recorded times.

Corrective action by the Field Sampling Team: The actual sampling times should be entered into the FSDS and field logbooks in real time as the samples are collected.

13. **Observation by Auditors:** The following items were observed during a review of the field logbooks and associated documentation:

- A. The inside insert that is attached to all of the field logbooks is missing from one logbook. This insert contains the CDM Site Manager contact and instructions on

the fields in the logbook that are required to be completed on a daily basis.

- B. The name of the owner on one IFF does not match the name of the owner on the FSDS. The IFF lists the owner's name as the occupant's name.
- C. The "QC By" field is not completed on one FSDS.
- D. Some of the inserts (i.e., BD# sticker) are not permanently affixed on documents and in the field logbooks.
- E. On several of the access agreements the owner/occupant signed but did not date the form.
- F. The COCs are not referenced in the field logbooks.

Corrective action by the Field Sampling Team: The auditors recommend that the field sampling teams take the necessary time to carefully review their documentation and field logbooks to verify that the above observations are corrected. Note that overall the field logbooks and associated documentation are very detailed and complete. The field sampling teams do an excellent job of documentation.

14. **Observation by Auditors:** On occasion, vermiculite/vermiculite product that was not observed by the reconnaissance team is observed by the field sampling team during the collection of samples. Depending on the amount of vermiculite/vermiculite product observed, the subsamples containing the vermiculite product may or may not be used as part of the composite. The SAP states that if vermiculite/vermiculite product is observed in a land-use area, samples will not be collected in this area.

Corrective action by the Field Sampling Team: The auditors recommend that if small amounts of vermiculite flakes are observed on the property by the field sampling team, that samples still be collected. However, as much detail as possible should be noted in the "Field Comments" section of the FSDS regarding the amount of vermiculite observed.

- III. **SHIPPING AND RECEIVING:** The audit team observed the procedures used by the sample custodian to receive the samples from the field sampling teams, complete the COCs, transfer the samples into the coolers, and complete the Courier paperwork to prepare the sample coolers for shipment. The following discrepancies were noted:

15. **Observation by Auditors:** The chain-of-custody (COC) records still reference Method EPA 600/4-84-054 for the preparation of rinsate samples. The correct method as stated in the project specific modification is EPA Method 120.1, revision 3.

Corrective action by Shipping and Receiving: The COCs should be corrected to reference the correct method.

16. **Observation by Auditors:** Heavy-duty plastic garbage bags are placed as liners in each sample cooler. This is in accordance with CDM SOP 2-1, Packaging and Shipping of Environmental Samples, but deviates from the project specific modification dated May 8, 2002.

Corrective action by Shipping and Receiving: A Record of Deviation/Request for Modification form be completed to remove "Section 1.5, Procedures" from the current project specific modification dated May 8, 2002.

17. **Observation by auditors:** The drain plugs on some of the sample coolers are not secured with fiber or duct tape as specified in SOP 2-1.

Corrective action by Shipping and Receiving: Each new and used cooler should be checked to verify that the drain plugs are secure.

- IV. **DATA MANAGEMENT:** The Audit Team reviewed logbooks, data sheets, COCs, residence files, etc., and met with some of the CDM staff to discuss project-specific issues. The following discrepancies were noted:

18. **Observation by Auditors:** The SAP describes a requirement that copies of the IFF be faxed daily to the Volpe Center. Currently the IFFs are mailed weekly to the Volpe Center due to the large number of IFFs.

Corrective action by CDM Staff: The auditors recommend that if mailing the IFFs weekly is acceptable, a Record of Deviation/Request for Modification form is completed, changing the SAP to allow weekly rather than daily IFF submissions.

19. **Observation by Auditors:** There is currently no system in place for updating copies of the SAP and SOPs that are in the possession of the reconnaissance teams and the field sampling teams. Currently when modifications are made to either the SAP or the SOPs, the teams are verbally informed of the changes.

Corrective action by CDM Staff: Updates to the SAP and SOPs should be provided to each of the reconnaissance teams and the field sampling teams. At a minimum, a list of the modifications should be given to each team.

20. **Observation by Auditors:** During review of the FSDSs and IFFs, the following observations were observed:

- A. On the FSDS the field "Grid, Quadrant, Section" is not completed.
- B. On the IFF site map, when symbols are used to identify locations where vermiculite product is observed (*) or where subsamples were collected (Y), a legend or key is not always available to signify what the symbol means.

Corrective action by CDM Staff: The Auditors recommend:

- A. A Record of Deviation/Request for Modification form is completed to remove the "Grid, Quadrant, Section" field from the FSDS.
- B. A legend or key is added to each site map on the IFF to explain what each symbol is. Note that many of the site maps were observed to have this information already in place.

21. **Observation by Auditors:** There is currently no system in place to identify the latest versions of the field documents other than the time stamp of the electronic files.

Corrective action by CDM Staff: A footer or some type of identifier should be added to the revised documents that indicate a revision number and the date revised.

22. **Observation by Auditors:** While observing one of the field sampling teams, the samplers noticed that the residence address on the last few pages on the IFF did not match the residence being sampled, and the site map did not match the layout of the property. Further investigation at the CDM office discovered that an incorrect address was recorded on the residence file folder, field logbook, and some of the IFF pages. (The correct address was the adjacent residence). As a result, the correct address was not entered in the Sample Control software (Elastic) due to the duplicate addresses. In addition, the photographs of the two residences (120 Forest Avenue and 140 Forest Avenue) were both identified using the same resident file name (140 Forest Avenue). Note that by examining the two photographs the correct addresses were found by looking at the street address located on the front of one of the houses.

Corrective action by CDM Staff: Periodic checks of all documentation should be performed to verify that all information is correct.

CONCLUSIONS

Overall, the on-site evaluation revealed that the CDM staff for both the reconnaissance teams and the field sampling teams, appear to be very proficient, professional, and knowledgeable with regard to the verbal inspections, sample collection, sample shipping, data collection, and documentation procedures. All four of the reconnaissance teams, and all four of the field sampling teams applied almost identical procedures while out in the field. As a result the interviews performed by the reconnaissance teams and the soil sampling performed by the field sampling teams were uniform from team to team. Also, a high level of professionalism and teamwork was exhibited by all of the teams. All staff members were cooperative, readily answered all questions posed by the auditors, and were helpful in pursuing the information that was needed by the on-site audit team. The contractor management was also responsive to the identified observations and appeared to be willing to apply the recommendations offered by the audit team.

ATTACHMENT

On-site Audit Checklist

Libby Operational Unit 4 Contaminant Screening Study

USEPA: Region VIII

Date of Evaluation: August 20-22, 2002

EVALUATION TEAM

<u>Name</u>	<u>Title</u>	<u>Contractor</u>
Mary Goldade	Project Officer	USEPA Region VIII
Michael Lenkauskas, CQA	Lead Auditor	IT Corporation
Timothy Vonnahme, CQA	Senior Auditor	IT Corporation

RECONNAISSANCE (Recon) TEAMS

<u>Team (Tm)</u>	<u>Residence ID</u>	<u>Name</u>	<u>Contractor</u>
1	43 Sheldon Flats	Tom Vanderweel	CDM
	Libby, MT	Dean Kozlowski	CDM
2	371 Reserve Road	Brain Pyles	CDM
	Libby, MT	Danelle Saint Louis	CDM
3	2230 West 2 nd St., Lot 2A	Shawn Oliveria	CDM
	Libby, MT	Aimee Vessell	CDM
4	Ron's Appliance Store	Paul Opem	CDM
		Karen Berry	CDM

On-site Audit Checklist

USEPA: Region VIII

Date of Evaluation: August 20-22, 2002

FIELD (Fld) SAMPLING (Smp) TEAMS

[illegible]

On-site Audit Checklist

Libby Operational Unit 4 Contaminant Screening Study

USEPA: Region VIII

Date of Evaluation: August 20-22, 2002

I. PRE-SCREENING ACTIVITIES	Recon	Fld Smp
A. Are daily field planning meetings held by the CDM on-site manager and attended by current field staff?	<u>Y</u>	<u>Y</u>
1. Are the following topics discussed:		
a. Objectives and scope of field work?	<u>Y</u>	<u>Y</u>
b. Equipment and training needs?	<u>Y</u>	<u>Y</u>
c. Number and types of samples and analyses?	<u>Y</u>	<u>Y</u>
d. Field operating procedures, schedule of events, and individual assignments?	<u>Y</u>	<u>Y</u>
e. Required QC measures?	<u>Y</u>	<u>Y</u>
f. Safety issues?	<u>Y</u>	<u>Y</u>
g. Documents governing field work that must be on-site?	<u>Y</u>	<u>Y</u>
h. Community relations?	<u>Y</u>	<u>Y</u>
i. Interactions with the media?	<u>Y</u>	<u>Y</u>
j. Any changes in the field planning documents?	<u>Y</u>	<u>Y</u>
k. Other (explain)? _____	<u>NA</u>	<u>NA</u>
2. Do all participants sign an attendance list?	<u>Y</u>	<u>Y</u>
3. Are the following items properly distributed to the applicable project files?		
a. Meeting agenda?	<u>Y</u>	<u>Y</u>
b. Attendance list?	<u>Y</u>	<u>Y</u>
c. Meeting notes?	<u>Y</u>	<u>Y</u>
B. Have all reconnaissance team members participated in a reconnaissance team orientation?	<u>Y</u>	<u>Y</u>
1. If yes, is the training documented? <u>Team members sign the "Required Reading Report."</u>	<u>Y</u>	<u>Y</u>
C. Have all field sampling team members participated in a field sampling team orientation?	<u>Y</u>	<u>Y</u>
1. If yes, is the training documented? <u>Team members sign the "Required Reading Report."</u>	<u>Y</u>	<u>Y</u>
<p>Comments:</p> <p>Y = Yes N = No NA = Not Applicable</p>		

On-site Audit Checklist

Libby Operational Unit 4 Contaminant Screening Study

USEPA: Region VIII

Date of Evaluation: August 20-22, 2002

II. RECONNAISSANCE	Tm 1	Tm 2	Tm 3	Tm 4
A. Does the reconnaissance team consist of at least two team members?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
B. Do all members of the reconnaissance team exhibit badges which identify them as USEPA contractors?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
C. Is a signed Access Agreement obtained from the resident prior to the initiation of verbal and visual inspection?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
D. If the property owner is not available, does the reconnaissance team leave a flyer detailing the CSS investigation and contact information?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
1. If yes, how is this documented? <u>In the field logbooks.</u>				
E. Did the property owner refuse to allow the CSS investigation to be conducted on their property?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
1. If yes, how was this documented? _____				
F. <u>Equipment and Materials:</u>				
1. Is proper personal protective equipment (PPE) available for reconnaissance activities (See Health and Safety Plan {HASP}):				
a. First aid kit?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Tyvek coveralls?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Respirator and cartridges?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Safety glasses?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Fire extinguisher?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. Steel-toed-boots?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
g. Gloves, cotton and nitrile?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
h. Respirator cleaning wipes?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
i. Cellular telephone/radio?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
j. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
2. Documents of Record:				
a. Access agreement forms?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Information Field Forms (IFFs)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Field Sample Data Sheets (FSDSs)?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
d. Chain-of-custody forms?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
e. Index IDs?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. Location IDs?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
g. Information flyer?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
h. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Comments: Y = Yes N = No S = Field Sampling Team Responsibility NA = Not Applicable D. All property owners were available during the audit.				

On-site Audit Checklist

Libby Operational Unit 4 Contaminant Screening Study

USEPA: Region VIII

Date of Evaluation: August 20-22, 2002

II. RECONNAISSANCE	Tm 1	Tm 2	Tm 3	Tm 4
F. Equipment and Materials (cont.):				
3. Applicable guidance documents:				
a. FSAP, Remedial Investigation, CSS, Libby Asbestos Site, OU4 (April 30, 2002)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Libby Asbestos Superfund Site OU4 HASP?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. SOP 4-1 (Revision 4), Field Logbook Content and Control?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. SOP 4-2 (Revision 5), Photographic Documentation of Field Activities?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. SOP CDM-Libby-03, Completion of Field Sample Data Sheets?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. SOP CDM-Libby-04, Completion of Property Information Field Form?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
g. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
4. Equipment:				
a. GPS unit?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
b. Digital camera?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Ladder?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Flashlight?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Clip Boards?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
G. Verbal Interview:				
1. Do questions ascertain information about the possible existence of primary sources of Libby Amphiboles (LA) within or near the property?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. Possible locations of Libby vermiculite?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Mine exposure?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Asbestos-related diseases?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Use of vermiculite building materials?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Other (explain)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
2. Is the collected information recorded on Information Field Forms (IFFs)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
H. Visual Inspection:				
1. Is the attic and/or wall cavity accessible for inspection?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. If yes, is a visual inspection performed?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Are other types of insulation (e.g., blown-in cellulose, fiber glass) moved to verify Libby vermiculite is not hidden?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Are other exposed areas (e.g., closets, circuit panels) investigated?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Is pertinent information documented in the:				
(1) Field Logbook?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(2) Field Sample Data Sheets (FSDSs)?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
(3) Information Field Forms (IFFs)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
Comments: Y = Yes N = No S = Field Sampling Team Responsibility NA = Not Applicable				

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H. <u>Visual Inspection (cont.):</u>				
2. Is a visual inspection of all structures performed?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. Primary?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Secondary?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
3. Is evidence of Libby vermiculite present in buildings?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
a. If yes, is a sketch plan-view of the interior of the structure(s) drawn (floors)?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
4. Are structure locations recorded using GPS equipment?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
a. Is the GPS point collected outside the main entrance to each structure?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
5. Is a site layout sketch of the property drawn prior to sampling?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. Does it include major features (e.g., trees, drainage ditches, utility poles, known underground utilities)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Does it include sampling locations?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Is the sketch drawn on the IFF?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
6. Is the property sectioned into land use areas for sampling (e.g., grassy areas, landscaped areas, gardens, fill areas)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
7. Are properties greater than 1/4 acre in size sectioned off into separate zones for increased accuracy in characterization?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. If yes, how is the size of the property determined? <u>Approx. measurement.</u>				
8. Are all land use areas within the property boundary visually inspected?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. Is a trowel used to check below the surface (no more than 6 inches)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
9. Is vermiculite product evident on the property?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>N</u>
a. If yes, are specific details of the observance recorded in the Field Logbook and IFF:				
(1) Location of contaminated source?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>NA</u>
(2) Volume (length, width, and depth observed during sampling)?	<u>S</u>	<u>S</u>	<u>S</u>	<u>NA</u>
(3) Estimated percentage of product?	<u>S</u>	<u>S</u>	<u>S</u>	<u>NA</u>
(4) How long the vermiculite product has existed on the property?	<u>S</u>	<u>S</u>	<u>S</u>	<u>NA</u>
<p>Comments:</p> <p>Y = Yes</p> <p>N = No</p> <p>S = Field Sampling Team Responsibility</p> <p>NA = Not Applicable</p> <p>9.a.(2, 3, 4): The Field Sampling Teams whenever possible attempt to complete these three items.</p>				

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I. Documentation:				
1. Is each structure assigned a location identification number (BD - #####)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
2. Are applicable documents properly completed:				
a. Is the Field Logbook properly complete (See Appendix A)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) Completed on-site?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Are the FSDS properly completed (See Appendix B)?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
(1) Completed on-site?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
c. Is the IFF properly completed (See Appendix C)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) One completed for each structure within the property boundary?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(2) Completed on-site?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Daily report?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
3. Were there any deviations from the guiding documents?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
a. If yes, were deviations properly documented in the Field Logbook?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
b. Was a Deviation/Request or a Modification Form completed?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
c. Is the newly revised Field Activities RD/RM form, revised 8/12/02, in use?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
d. Was the deviation approved by the Regional Project Manager, On-scene Coordinator, or SSC prior to initiation of the activity?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
J. Quality Control:				
1. Did the reconnaissance team accomplish the following Data Quality Objectives (DQO's):				
a. Clearly explain the screening and soil sampling process to the tenant?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Answer any pertinent questions?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Obtain a signed access agreement?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Complete visual inspection?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) Primary?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(2) Secondary (if applicable)?	<u>NA</u>	<u>NA</u>	<u>Y</u>	<u>NA</u>
e. Complete verbal inspection?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. Other (explain)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<p>Comments:</p> <p>Y = Yes N = No S = Field Sampling Team Responsibility NA = Not Applicable</p>				

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III. OUTDOOR INSPECTION/SOIL SAMPLING	Tm 1	Tm 2	Tm3	Tm 4
A. Has a reconnaissance of the property been completed?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
B. Are the documents/data generated from the reconnaissance available to the sampling team:				
1. A signed access agreement?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
2. Applicable FSDSs, IFFs, and/or copies of Field Logbook pages?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
3. Visual inspection completed?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
4. Other (explain)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
C. Are soil sampling activities conducted by a two person team?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
D. Do all members of the reconnaissance team exhibit badges which identify them as USEPA contractors?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
E. <u>Equipment and Materials:</u>				
1. Equipment:				
a. GPS unit?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Digital camera?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Trowel or bulb planter?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Mixing bowl w/spoons?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Zip-lock plastic bags?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. Indelible markers and pens?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
g. Decon bucket?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
h. Water sprayer?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
i. Scrubbing brush?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
j. De-ionized water?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
k. 1 liter HDPE containers?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
l. Aluminum foil?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
m. Paper towels?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
n. Measuring tape?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
o. Tape - clear, duct, and strapping?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
p. Ice chests?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
q. Garbage bags?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
r. Ladder?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
s. Flashlight?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
t. Clipboards?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
u. Other (list)?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<p>Comments:</p> <p>Y = Yes N = No NA = Not Applicable</p> <p>III.B.1. Signed access agreements are currently not carried by the Field Sampling Teams. The Audit Team recommended that the Field Sampling Teams carry a copy of the access agreement in case an occupant asks for proof that permission had been granted by the owner of the residence.</p>				

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III. OUTDOOR INSPECTION/SOIL SAMPLING	Tm 1	Tm 2	Tm 3	Tm 4
E. Equipment and Materials (Cont.):				
2. Is proper PPE available for sampling activities (See HASP):				
a. First aid kit?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Tyvek coveralls?	<u>S</u>	<u>S</u>	<u>S</u>	<u>S</u>
c. Respirator and cartridges?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Safety glasses?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Fire extinguisher?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. Steel-toed-boots?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
g. Gloves, cotton and nitrile?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
h. Respirator cleaning wipes?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
i. Cellular telephone/radio?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
j. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
3. Documents of Record:				
a. Access agreement forms?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
b. Information Field Forms (IFFs)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Field Sample Data Sheets (FSDSs)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Chain-of-custody forms?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Index IDs?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. Location IDs?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
g. Information flyer?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
h. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
4. Applicable Guidance Documents:				
a. FSAP, Remedial Investigation, CSS, Libby Asbestos Site, OU4 (April 30, 2002)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Libby Asbestos Superfund Site OU4 HASP?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. SOP 2-1 (Revision 1), Packaging and Shipping of Environmental Samples?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. SOP 2-2 (Revision 3), Guide to Handling Investigation-derived Waste?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. SOP 4-1 (Revision 4), Field Logbook Content and Control?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. SOP 4-2 (Revision 5), Photographic Documentation of Field Activities?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
g. SOP 4-5 (Revision 4), Field Equipment Decontamination at Nonradioactive Sites?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
h. SOP CDM-Libby-03, Completion of Field Sample Data Sheets?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
i. SOP CDM-Libby-04, Completion of Information Field Form?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
j. CDM-Libby-05, Site-Specific SOP for Soil Sample Collection?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
k. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Comments: Y = Yes N = No S = Field Sampling Team Responsibility NA = Not Applicable				
III.E.3.a. Signed access agreements are currently not carried by the Field Sampling Teams. The Audit Team recommended that the Field Sampling Teams carry a copy of the access agreement in case an occupant asks for proof that permission had been granted by the owner of the residence.				

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F. Soil Sampling:				
1. For those land use areas where no visible vermiculite is observed, are composite samples collected?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
2. Are subsamples properly collected as follows:				
a. Land use area cleared of all twigs, leaves, and other materials that can be easily removed by hand?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. To minimize dust generated and the level PPE required, do the samplers wet the area where the samples are to be collected?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. A hole excavated in the soil with a trowel?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) Approximately 2 inches in diameter with vertical sides?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(2) Approximately 1 inch deep (6 inches for disturbed areas)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(3) Excavated material placed directly into a mixing bowl?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Are approximate, equal, masses of soil collected at each subsample location?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) If yes, how is this verified? <u>Visual comparison.</u>				
3. Once five subsamples (less under special circumstances) have been collected, are they properly composited as follows?				
a. Mixed using the same trowel used to collect the associated subsamples?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Approximately 2000 grams transferred to a zip-lock bag?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
4. Are composite samples collected for each land area of less than or equal to 1/8 acre?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
5. Are two to five composite samples collected at each property?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
6. Are composite samples made up of subsamples collected from the same land use area?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
7. Are sampling points recorded using GPS equipment?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. Is the GPS reading taken at the midpoint of each composite group?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
G. Equipment Decontamination:				
1. Is all reusable equipment used to collect, handle, or measure samples decontaminated before coming into contact with any sample?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
<p>Comments:</p> <p>Y = Yes N = No</p> <p>F.3.b. The Audit Team recommended to the field sampling teams that more sample be collected when sampling driveways due to the presence of rocks in the composite.</p> <p>F.7. Every effort is made by the field sampling team to obtain accurate GPS results. Sometimes GPS reading can not be obtained due to large trees, buildings, etc. These sites will be revisited at a later time by the GPS expert for a second attempt. If this is unsuccessful, the locations are to be recorded using aerial photographs.</p>				

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G. Equipment Decontamination (cont.):				
2. Are a new pair of nitrile gloves worn for each sample collected?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
3. Is equipment transported to the decontamination station in a manner to prevent cross-contamination of equipment and/or area?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
4. Are decontamination procedures followed:				
a. Equipment disassembled (if applicable)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Rinsed in potable water?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
c. Rinsed with de-ionized water?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Allowed to completely dry?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
5. If decontaminated equipment are not immediately used, are they covered with plastic or aluminum foil?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
6. Is the decontamination of equipment recorded in the appropriate Field Logbook?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
7. Are all investigative-derived waste (IDW) collected in transparent garbage bags, marked "IDW" with an indelible marker, and placed in an asbestos contaminated waste stream for disposal at the mine?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
H. Quality Control:				
1. Are field equipment blanks and rinsate blanks collected at the proper frequency?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. During the first week, the middle, and the last week of the field investigation?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. At the end of each day from equipment used by different field teams?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. One equipment blank and rinsate blank per day for the specified weeks?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Equipment blank and rinsate blank collected from the same equipment?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Are field equipment blanks collected before rinsates?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
2. Are field duplicates collected at a frequency of 5% (one for every 20 field samples collected)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
a. Are the sample and sample duplicate locations co-located?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
<p>Comments: Y = Yes, N = No</p> <p>G.4.b. The equipment is not rinsed with potable water between sample collection. However, the sampling team rinses with copious amounts of de-ionized water, which appears to be sufficient to adequately clean the equipment between sample collection.</p> <p>G.4.d. Paper towels are used by the field sampling teams to dry equipment even though the use of paper towels is not listed in the SAP or SOPs.</p> <p>G.6. While the auditors observed the field sampling teams performing decontamination of equipment between field samples, it is currently not documented in the field logbooks. The audit team recommended this information be documented in the logbooks. Note that the next day, immediately following the recommendation, the auditors noted field teams began documenting decontamination in the field logbooks.</p> <p>H.2 Sample duplicates that are collected are not co-located samples as described in the SAP. The samples are currently split samples of the composite field sample. The audit team recommended to the field sampling team that the field duplicate samples be separate samples in the same land use area. This will require one additional sampling event for every 20 samples.</p>				

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III. OUTDOOR INSPECTION/SOIL SAMPLING	Tm 1	Tm 2	Tm 3	Tm 4
I. Documentation:				
1. Is each composite sample assigned an identification number (CS - #####)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
2. Is each sampling point assigned a location identification number (SP- #####)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
3. Documents requiring proper completion:				
a. Is the Field Logbook properly completed (See Appendix A)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) Completed on-site?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
b. Is the FSDS properly completed (See Appendix B)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) Completed on-site?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
c. Is the IFF properly completed (See Appendix C)?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) One completed for each structure within the property boundary?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(2) Completed on-site?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
d. Chain-of-custody records?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
(1) Completed on-site?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
e. Daily report?	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
f. Other (list)? _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
4. Were there any deviations from the guiding documents?	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
a. If yes, were deviations properly documented in the Field Logbook?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
b. Was a Deviation/request or a Modification Form completed?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
c. Is the newly revised Field Activities RD/RM form, revised 8/12/02, in use?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
d. Was the deviation approved by the Regional Project Manager, On-scene Coordinator, or SSC prior to initiation of the activity?	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<p>Comments:</p> <p>Y = Yes N = No NA = Not Applicable</p>				

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IV. CHAIN-OF-CUSTODY PROCEDURES	Fld Smp
A. <u>Transfer from Field Team to Sample Custodian (SC):</u>	
1. Are samples stored under proper COC prior to transfer?	<u>Y</u>
2. Are all samples and sampling documents properly relinquished to the SC at the end of each day?	<u>Y</u>
B. <u>Transfer from Sample Custodian to Laboratory:</u>	
1. Are samples stored under proper COC prior to transfer?	<u>Y</u>
2. Are samples packaged to prevent movement during shipment?	<u>Y</u>
3. Are samples packed in the appropriate material to prevent static electricity?	<u>Y</u>
a. Are containers inspected to insure the samples are not packed in:	
(1) Polystyrene peanuts?	<u>Y</u>
(2) Vermiculite?	<u>Y</u>
(3) Paper shreds?	<u>Y</u>
(4) Excelsior?	<u>Y</u>
4. Do the white and yellow copies of the COCs accompany the samples to the laboratory?	<u>Y</u>
5. Are all sample shipments inspected for the following documentation:	
a. Sample container labels?	<u>Y</u>
b. COC forms?	<u>Y</u>
c. Sample and container custody seals?	<u>Y</u>
d. Shipping forms?	<u>Y</u>
6. Is a copy of the carrier (Federal Express) bill of lading kept with the paperwork for each shipment?	<u>Y</u>
<p>Comments:</p> <p>Y = Yes N = No</p> <p>IV. The COC documentation still references water analyses by EPA Method 600/4-84-034 for the preparation of rinsate samples, and not the method described in the project specific modification (EPA Method 120.1, revision 003).</p> <p>IV.B.2. The audit team recommended rescinding the latest modification that was issued stating not to use heavy duty bags to wrap the samples in the coolers. Currently these bags are being used in the sample coolers.</p> <p>IV.B.2 The audit team recommended that drain plugs on new coolers and coolers currently in use be taped shut to prevent water from possibly leaking out of the coolers during shipment.</p> <p>IV.3.a. The soil samples are double bagged in the field and delivered to the sample custodian at the end of each day. The sample custodian using the associated COC packs the samples inside the cooler which is lined with a heavy duty bag. The bag is closed and no ice is added to the cooler prior to shipment.</p> <p>IV.4. The sample custodian keeps the pink copy in the CDM Libby office.</p>	

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V. DATA MANAGEMENT	Data Mgt
<p>A. Are data collected during the visual inspection, verbal inspection, and sampling activities entered into a geographic information system (GIS) database on a daily basis?</p> <p style="margin-left: 40px;">1. If yes, what information is entered? <u>Location taken at the front of the residence, midpoint locations of sampling sites per land use area, residence address, number of sampling locations, BD number, etc.</u></p>	<u>Y</u>
<p>B. <u>Access Agreements:</u></p> <p style="margin-left: 40px;">1. Original filed in the residential folders maintained in the CDM Libby office?</p> <p style="margin-left: 40px;">2. Copies distributed weekly to:</p> <p style="margin-left: 80px;">a. CDM Helena office?</p> <p style="margin-left: 80px;">b. CDM Denver office?</p>	<p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p>
<p>C. <u>Information Field Forms (IFFs):</u></p> <p style="margin-left: 40px;">1. Originals filed in Libby by building location identification number (BD) number?</p> <p style="margin-left: 40px;">2. Copies distributed to:</p> <p style="margin-left: 80px;">a. Residential folders maintained in the CDM Libby office?</p> <p style="margin-left: 80px;">b. CDM Helena office?</p> <p style="margin-left: 80px;">c. CDM Denver office?</p> <p style="margin-left: 80px;">d. Additional copy faxed to Volpe Center daily for data entry?</p>	<p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p> <p><u>N</u></p>
<p>D. <u>Field Sample Data Sheets (FSDSs):</u></p> <p style="margin-left: 40px;">1. Originals filed in Libby by sheet number?</p> <p style="margin-left: 40px;">2. Copies distributed to:</p> <p style="margin-left: 80px;">a. Residential folders maintained in the CDM Libby office?</p> <p style="margin-left: 80px;">b. CDM Helena office?</p> <p style="margin-left: 80px;">c. CDM Denver office?</p> <p style="margin-left: 80px;">d. Additional copy faxed to Volpe Center daily for data entry?</p>	<p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p>
<p>E. <u>Chain-of-Custody Forms:</u></p> <p style="margin-left: 40px;">1. Copies distributed to:</p> <p style="margin-left: 80px;">a. White and yellow copies accompany samples during shipment?</p> <p style="margin-left: 80px;">b. Pink copy to the CDM Helena office?</p> <p style="margin-left: 80px;">c. Copy maintained in the Libby office and filed by COC number?</p> <p style="margin-left: 80px;">d. Copy to CDM Denver office?</p>	<p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p> <p><u>Y</u></p>
<p>Comments:</p> <p>Y = Yes</p> <p>N = No</p> <p>V.C.2.d. Additional copies of the IFFs are not faxed but mailed to the Volpe Center each Friday.</p>	

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V. DATA MANAGEMENT		Data Mgt
F. <u>Field Logbooks:</u>		
1. Where are Field Logbooks maintained during non-business hours? <u>Logbooks are kept locked in a cabinet in the office of the Sample Custodian.</u>		
2. Once the Field Logbook are completed, is (are):		
a. Original shipped to the CDM Helena office?		<u>Y</u>
b. Copy shipped to the CDM Denver office?		<u>Y</u>
c. Copy shipped to the CDM Libby office?		<u>Y</u>
d. Copies of relevant pages maintained in the residential file folders?		<u>Y</u>
G. <u>Quality Control:</u>		
1. Are screening field checks performed by the Contamination Screening Study (CSS) Task Leader at a frequency of 2% (1 per 50)?		<u>Y</u>
Comments: Y = Yes N = No		

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VI. APPENDIX A - FIELD LOGBOOK PROCEDURES (CDM SOP 4-1)	Recon	Fld Smp
A. Preparation:		
1. Are field logbooks bound with lined, consecutively numbered pages?	<u>Y</u>	<u>Y</u>
2. Are pages numbered prior to initial use of the logbook?	<u>Y</u>	<u>Y</u>
3. Is each logbook marked with a specific document control number (if applicable)?	<u>Y</u>	<u>Y</u>
4. Is the following information recorded on the cover of the logbook:		
a. Field logbook document control number?	<u>Y</u>	<u>Y</u>
b. Activity (if the logbook is to be activity-specific) and location?	<u>Y</u>	<u>Y</u>
c. Name of the CDM federal contact and phone number(s)?	<u>Y</u>	<u>Y</u>
d. Start date?	<u>Y</u>	<u>Y</u>
e. Are special logbooks used (e.g. waterproof paper)?	<u>Y</u>	<u>Y</u>
5. Are the first pages of the logbook reserved for a table of contents (TOC)?	<u>Y</u>	<u>Y</u>
6. Does the first page contain the titles "Table of Contents", Date/Description, and Page?	<u>Y</u>	<u>Y</u>
B. Operation:		
1. Are observations, quantities of materials, calculations, drawings, and related information recorded <u>directly</u> in the logbook?	<u>Y</u>	<u>Y</u>
2. Are forms used to record site information referenced in the logbook?	<u>Y</u>	<u>Y</u>
3. Are pages completed or lined-out prior to starting a new page?	<u>Y</u>	<u>Y</u>
4. Are both sides of each page used?	<u>Y</u>	<u>Y</u>
5. Are erasures or blot-outs evident in the logbook?	<u>N</u>	<u>N</u>
6. Are corrections marked by a single line through the material to be deleted?	<u>Y</u>	<u>Y</u>
7. Is each correction initialed and dated?	<u>Y</u>	<u>Y</u>
8. Are any obliterations evident on the logbook pages?	<u>N</u>	<u>N</u>
9. Are any pages removed from the logbook?	<u>N</u>	<u>N</u>
10. Are the following specific requirements included for each field logbook:		
a. Initial and date each page?	<u>Y</u>	<u>Y</u>
b. Sign and date the final page of entries for each day?	<u>Y</u>	<u>Y</u>
<p>Comments:</p> <p>Y = Yes N = No</p> <p>VI.A.4.c. The inside insert present in all field logbooks was missing from one of the field logbooks. This insert contained the CDM Site Manager contact and instructions for the fields required to be completed on a daily basis.</p>		

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VI. APPENDIX A - FIELD LOGBOOK PROCEDURES (CDM SOP 4-1)	Recon	Fld Smp
B. Operation (Cont.)		
11. If multiple authors used the same logbook, are individual entries identified by author:		
a. Sign name?	<u>Y</u>	<u>Y</u>
b. Print name?	<u>Y</u>	<u>Y</u>
c. Date?	<u>Y</u>	<u>Y</u>
12. Do new authors sign and print their name prior to adding entries in the logbook?	<u>Y</u>	<u>Y</u>
13. Is the following information entered into the logbooks on a daily basis:		
a. Date and time?	<u>Y</u>	<u>Y</u>
b. Name of the individual making the entry?	<u>Y</u>	<u>Y</u>
c. Name of the field team and other personnel on site?	<u>Y</u>	<u>Y</u>
d. Description of activity being conducted including station or location?	<u>Y</u>	<u>Y</u>
e. Weather conditions (i.e., temperature, cloud cover, precipitation, wind direction, speed) and other pertinent data?	<u>Y</u>	<u>Y</u>
f. Level of personal protection to be used?	<u>Y</u>	<u>Y</u>
g. Serial numbers of instruments?	<u>Y</u>	<u>Y</u>
h. Required calibration information?	<u>NA</u>	<u>NA</u>
i. Serial tracking numbers of documentation (e.g., carrier airbills)?	<u>NA</u>	<u>NA</u>
14. Are entries into the field logbook preceded with the time (military) of the observation?	<u>Y</u>	<u>Y</u>
15. Are times entered at each point of event or measurements that are critical to the activity being logged?	<u>Y</u>	<u>Y</u>
16. Are all measurements made and samples collected recorded?	<u>Y</u>	<u>Y</u>
17. If measurements are documented by automatic methods, are these referenced in the logbook?	<u>NA</u>	<u>NA</u>
18. Are <u>detailed</u> descriptions of each location or station recorded at each station where measurements or samples are collected?	<u>NA</u>	<u>NA</u>
19. Are a compass, scale, or nearby survey markers used as appropriate?	<u>Y</u>	<u>Y</u>
20. Do all maps or sketches in the logbook have descriptions of the features shown and a direction indicator?	<u>Y/N</u>	<u>Y/N</u>
21. Are any maps, sketches, figures, or data that do not fit on a logbook page referenced and attached to the logbook to prevent separation?	<u>Y</u>	<u>Y</u>
<p>Comments:</p> <p>Y = Yes N = No NA = Not Applicable</p> <p>VI.B.13. Acronyms were used for the Consent for Access Form (AA) and the Assessment Information Field Form (IFF) even though the acronyms are not defined.</p> <p>VI.B.19. Some of the teams use a compass for assistance in determining direction.</p> <p>VI.B.20. Some of the site maps did not contain direction indicators. The direction was instead referenced by cross streets. A recommendation was made by the audit team to all of the teams to make sure that direction indicators are present on all site maps.</p>		

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VI. APPENDIX A - FIELD LOGBOOK PROCEDURES (CDM SOP 4-1)	Recon	Fld Smp
B. <u>Operation (Cont.):</u>		
22. Are the following events and observations recorded in the logbook:		
a. Changes in the weather that impact field activities?	<u>NA</u>	<u>NA</u>
b. Deviations from procedures outlined in any governing documents, and the reason for any noted deviation?	<u>NA</u>	<u>NA</u>
c. Problems, downtime, or delays?	<u>NA</u>	<u>NA</u>
d. Upgrade or downgrade of personal protection equipment?	<u>NA</u>	<u>NA</u>
C. <u>Post-Operation:</u>		
1. Are all completed pages photocopied weekly at a minimum and forwarded to the field or project office?	<u>Y</u>	<u>Y</u>
2. At the conclusion of each activity or phase of site work, does the individual responsible for the logbook ensure that all entries are signed and dated?	<u>Y</u>	<u>Y</u>
3. Are completed logbooks submitted to the records file for archiving?	<u>Y</u>	<u>Y</u>
Comments: Y = Yes N = No NA = Not Applicable		

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VII. APPENDIX B - FIELD SAMPLE DATA SHEET (FSDS) PROCEDURES	Fld Smp
A. Are all of the fields completed on the FSDS for <u>Soil</u> Samples?	<u>Y</u>
B. Are all of the fields completed on the FSDS for <u>Water</u> Samples?	<u>Y</u>
C. Are the following fields completed:	
1. Names (full names of the sampling team)?	<u>Y</u>
2. Index ID (Index ID numbers for the CSS are in the form CS-#####)	<u>Y</u>
3. Location ID (Soil samples, SP-#####)?	<u>Y</u>
4. Sample Group (Yard, garden, driveway, road, flowerbed, field, walkway, park, school)?	<u>Y</u>
5. Location Description (Front yard, back yard, side yard)?	<u>Y</u>
6. Category (FS=field sample and FD=field duplicate)?	<u>Y</u>
7. Grid, Quadrant, Section (Specific to the grid, quadrant, and section the sample is collected in, eg., 45C3, where 45=grid number, C=quadrant letter, 3=section number)?	<u>N</u>
8. Completed by (Initials of field team member that completes the FSDS)?	<u>Y</u>
9. QC by (Initials of field team member that completes QC check of FSDS)?	<u>N</u>
<p>Comments:</p> <p>Y = Yes N = No</p> <p>VII. A The audit team observed one field sampling team recording the sampling times in uniform intervals prior to the actual collection of the soil samples.</p> <p>VII.C.7. <i>This field is not completed on the FSDS. The form should be revised to remove this field.</i></p> <p>VII.C.9. Of all of the FSDS's that were audited, only one FSDS was missing the initials of the team member performing the QC check.</p>	

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VIII. APPENDIX C - INFORMATION FIELD FORM (IFF) PROCEDURES	Recon	Fld Smp
A. Is an IFF completed for each structure located on a property?	<u>Y</u>	<u>NA</u>
B. Are the following two types of IFFs used:		
1. Primary structure and property assessment information field form?	<u>Y</u>	<u>NA</u>
2. Secondary structure information field? <u>Only if vermiculite is present.</u>	<u>NA</u>	<u>NA</u>
C. Are the IFFs completed from both interviews with the occupant/owner and visual inspection of the structures and surrounding properties?	<u>Y</u>	<u>Y</u>
D. Are the IFFs used to facilitate the information gathering process of properties during the contaminant screening study (CSS)?	<u>Y</u>	<u>NA</u>
E. Are the definitions for primary structure, secondary structure, occupant, and owner correctly used?	<u>Y</u>	<u>NA</u>
F. Are <u>all</u> of the fields completed on the IFF?	<u>Y</u>	<u>Y</u>
G. Are the following fields completed for the Primary Structure Information Field Form and the Secondary Structure Information Field Form, as stated in Document No. CMD-LIBBY-04:		
1. <u>Header Information:</u>		
a. Is the BD# completed using the location identification number of the structure?	<u>Y</u>	<u>NA</u>
b. Is the address of the property being assessed correctly completed?	<u>N</u>	<u>NA</u>
c. Is the structure description detailed (i.e., house, trailer, garage, shed, barn)?	<u>Y</u>	<u>NA</u>
d. Is the full name and company name of each member of the team documented?	<u>Y</u>	<u>NA</u>
e. Does a separate field team member sign each completed IFF?	<u>Y</u>	<u>NA</u>
f. Does the CSS Task Leader review and sign approximately 2% of the IFFs?	<u>Y</u>	<u>NA</u>
2. <u>House Attributes:</u>		
a. Is a detailed property description noted on the IFF?	<u>Y</u>	<u>Y</u>
b. Does the number of floors include the attic only if it is used as a living space?	<u>Y</u>	<u>NA</u>
c. Does the number of rooms per floor above ground exclude the basement?	<u>Y</u>	<u>NA</u>
d. Does the basement refer to a room that is not a crawl space?	<u>Y</u>	<u>NA</u>
<p>Comments:</p> <p>Y = Yes N = No NA = Not Applicable</p> <p style="margin-left: 40px;">Note that the field sampling teams only add the soil sample collection locations on the IFF site maps. All other fields on the IFF are completed by the reconnaissance teams.</p> <p>VIII.A. A separate IFF is completed for secondary structures only if vermiculite is present in or around the structure.</p> <p>VIII.G.1.b One of the field sampling teams discovered an incorrect address on the last few pages of the IFF. The site map drawn on the IFF did not match the actual residence. This incident was investigated that evening by the Task Leader and staff and through use of the database and photographs of the two residences in question, the Task Leader was able to determine the correct address.</p>		

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VIII. APPENDIX C - INFORMATION FIELD FORM (IFF) PROCEDURES	Recon	Fld Smp
3. <u>Occupant Information</u> a. Is a distinction made between residences and commercial properties? b. If the residence/building has been remodeled, is the number of years since the remodel and the location of the remodel noted?	<u>Y</u> <u>Y</u>	<u>NA</u> <u>NA</u>
4. <u>Indoor Assessment</u> a. Did the samplers perform a visual inspection of the attic? b. Are all occupant's answers concerning past or present presence of vermiculite insulation noted?	<u>Y</u> <u>Y</u>	<u>NA</u> <u>Y</u>
5. <u>Outdoor Assessment</u> a. Are all fields completed in detail and any other observations added to the notes area?	<u>Y</u>	<u>Y</u>
6. <u>CSS Assessment</u> a. Are the occupant, indoor, and outdoor information correctly completed?	<u>Y</u>	<u>Y</u>
<p>Comments:</p> <p>Y = Yes N = No NA = Not Applicable</p> <p style="margin-top: 20px;">Note that the field sampling teams only add the soil sample collection on the IFF site maps. All other fields on the IFF are completed by the reconnaissance teams.</p>		

On-site Audit Checklist

Libby Operational Unit 4 Contaminant Screening Study

USEPA: Region VIII

Date of Evaluation: August 20-22, 2002

IX. APPENDIX D - PHOTOGRAPHIC DOCUMENTATION OF FIELD ACTIVITIES	Recon Tm
A. Does the Field Team Leader (FTL) ensure that the format and content of photographic documentation are in accordance with CDM SOP 4-2.?	<u>Y</u>
B. Does the photographer follow the directions of the FTL?	<u>Y</u>
1. If not the FTL, who? _____	
C. Does the photographer record photographic activities in a bound logbook?	<u>Y</u>
D. Is a separate photographic logbook used, or a section of the field logbook used for the photographic activities?	<u>Y</u>
E. Is the following photographic equipment used:	
1. 35 mm camera?	<u>N</u>
2. Digital camera?	<u>Y</u>
3. Video camera?	<u>N</u>
4. Other? _____	<u>NA</u>
F. Are all film photographs made using a medium speed, or multi purpose fine-grain, color negative film in the 35 mm format?	<u>NA</u>
G. Is the Kodak brand "Ektapress Gold Deluxe" film or equivalent used?	<u>NA</u>
H. Do all still photographs have a full caption attached to the back or attached to a photo log sheet?	<u>NA</u>
I. Does the caption contain the following information:	
1. Film roll control number (if required) and photograph sequence number?	<u>NA</u>
2. Date and time?	<u>NA</u>
3. Description of activity/item shown?	<u>NA</u>
4. Direction (if applicable)?	<u>NA</u>
5. Name of the photographer?	<u>NA</u>
J. Is a standard reference marker (as directed by the FTL) used in all documentary visual media?	<u>N</u>
<p>Comments:</p> <p>Y = Yes</p> <p>N = No</p> <p>NA = Not Applicable</p> <p>IX.E. A modification to CDM SOP 4-2 was approved stating that only digital photographs will be used, and no reference markers or slates will be used.</p> <p>IX.I. Currently the digital photographs are not printed and kept in the hardcopy files with the IFFs, FSDSs, and logbook pages. They are kept electronically and archived. A recommendation was made by the Audit Team that once a formal plan concerning the use of the photographs is approved, a modification to CDM SOP 4-2 be initiated.</p>	

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IX. APPENDIX D - PHOTOGRAPHIC DOCUMENTATION OF FIELD ACTIVITIES	Recon Tm
K. Is the digital media downloaded an a minimum of once each day?	<u>Y</u>
L. Photographic Documentation Using Video Cameras:	
1. Is the following information recorded:	
a. Date and time?	<u>NA</u>
b. Photographer?	<u>NA</u>
c. Site ID number?	<u>NA</u>
d. Site location?	<u>NA</u>
2. Is the original copy ever edited?	<u>N</u>
3. If editing is desired, is a working copy of the original recording made?	<u>NA</u>
M. Is the following information maintained in the appropriate logbook:	
1. Photographer name?	<u>Y</u>
2. If required, an entry for each new roll/tape control number assigned?	<u>Y</u>
3. Sequential tracking number of each photograph taken?	<u>Y</u>
4. Date and time (military time)?	<u>Y</u>
5. Location?	<u>Y</u>
6. A description of the activity/item photographed?	<u>Y</u>
7. If needed, a description of the general setup?	<u>Y</u>
N. Does the photographer arrange for transport of the film from the field to the laboratory?	<u>Y</u>
O. Does the photographer arrange for delivery of the negatives and photographs, digital storage medium, or videotape to the project management representative?	<u>NA</u>
P. At the end of each day does the photographer ensure that the logbook has been completely filled out as outlined in CDM SOP 4-1?	<u>Y</u>
Q. Are photographic documentation submitted to the project files for proper archiving?	<u>Y</u>
R. Are the completed pages of the appropriate logbooks copied weekly and submitted to the project files for proper archiving?	<u>Y</u>
<p>Comments:</p> <p>Y = Yes N = No NA= Not Applicable</p> <p>IX.M.3. A sequential tracking number for each photograph is kept in the field logbook. Once the picture is uploaded onto the network, the file is renamed using the address of the residence.</p>	